

Instructions: There are 50 questions; each is worth 2 pts. Write down the *best* answer for each one. Please make sure that you fill out your scantron correctly. In case of discrepancy, the answer on the scantron will be considered your answer. Hand in your scantron, but you may keep your exam. Good luck!

- e ___ 1) A typical (average) systolic blood pressure:
a) 210 b) 430 c) 70 d) 30 e) 120
- a ___ 2) True or false: during exercise blood flow to the capillaries around the stomach can be reduced:
a) True b) False
- b ___ 3) Blood plasma is part of the:
a) living component of blood b) non-living component of blood c) impossible to tell
- c ___ 4) Thrombin:
a) turns Prothrombin into Postthrombin b) turns fibrin into fibrinogen
c) turns fibrinogen into fibrin d) causes platelets to become sticky
- d ___ 5) Which is not a preventable cause of heart disease:
a) smoking b) bad diet c) lack of exercise d) aging
- d ___ 6) The number 1 killer of people in the U.S. is:
a) diabetes b) strokes c) cancer d) heart disease e) HIV/AIDS
- b ___ 7) Your stomach acid is part of the:
a) specific defenses b) non-specific defenses c) neither
- d ___ 8) As a result of tissue damage, many damaged cells release:
a) antibodies b) antigens c) antigenic determinants d) histamine
- a ___ 9) True or false: interferon can cure the common cold:
a) True b) False
- d ___ 10) Antigens are generally found on the surface of:
a) T-cells b) B-cells c) Red blood cells d) pathogens
- b ___ 11) B-cells grow and mature in the:
a) Brain b) bone marrow c) thymus d) thyroid e) basilar membrane
- a ___ 12) True or false: each lymphocyte has only one type of antigen receptor on its surface:
a) True b) False
- e ___ 13) Antibodies can do all of the following except:
a) coat viruses or bacteria b) hook bacteria or viruses together
c) act as signals for complement proteins d) precipitate out toxins (antigens).
e) destroy bacteria by engulfing them.

- a__ 14) True or false: helper T-cells can also make memory cells when activated:
a) True b) False
- a__ 15) True or false: Perforin is used by cytotoxic T-cells to puncture infected cells of the body.
a) True b) False
- e__ 16) An example of an autoimmune disease:
a) Sleeping sickness b) tuberculosis c) malaria d) common cold e) type I diabetes
- d__ 17) Sleeping sickness is transmitted by:
a) sneezing b) exchange of body fluids c) mosquitoes d) Tse-tse flies
- b__ 18) In humans, nitrogenous waste is:
a) ammonia b) urea c) uric acid d) none of the above
- d__ 19) Waste products are expelled from the glomerulus into the:
a) collecting duct b) proximal tubule c) distal tubule d) Bowman's capsule
- e__ 20) The loop of Henle:
a) removes wastes from the proximal tubule
b) collects waste products and puts them into the bladder
c) turns ammonia into urea
d) controls the levels of ADH in the kidney
e) establishes a salt concentration gradient in the kidney
- a__ 21) ADH controls the permeability of the:
a) collecting duct b) proximal tubule c) distal tubule d) loop of Henle
- a__ 22) If ADH levels rise, that means your kidneys will:
a) save water b) get rid of water
- e__ 23) **Not** made in the anterior pituitary:
a) prolactin b) TSH c) ACTH d) endorphins e) ADH
- d__ 24) Causes contractions of the uterus:
a) FSH b) LH c) prolactin d) oxytocin
- d__ 25) Controls your sleep cycle (also used to set your biological clock); secreted by the pineal gland:
a) adrenalin b) estrogen c) testosterone d) melatonin
- a__ 26) Calcitonin causes:
a) bones to absorb calcium b) bones to release calcium c) neither
- b__ 27) Under normal circumstances insulin is made by which cells in the pancreas:
a) alpha b) beta c) gamma d) delta

- d__28) As a result of the stress caused by this exam, your anterior pituitary has probably been releasing which hormone for the last few days?
a) adrenalin b) prolactin c) oxytocin d) ACTH e) estrogen
- b__29) If you only have one parent, what kind of reproduction is that?
a) sexual b) asexual
- c__30) If each piece of an animal can grow a new individual, this type of reproduction is known as:
a) fission b) budding c) fragmentation d) parthenogenesis
- d__31) Reproduction in which there only exist females (which can lay viable eggs without sperm):
a) fission b) budding c) fragmentation d) parthenogenesis
- a__32) True or false: some fish can change from being female into male:
a) True b) False
- c__33) Fertilization that takes place outside the body is known as:
a) internal b) mediated c) external d) removed
- c__34) Type of birth in which the young are born alive, but do not receive any nutrients from the mother:
a) oviparous b) viviparous c) ovoviviparous
- a__35) Sperm are stored here:
a) epididymis b) seminal vesicles c) prostate gland d) bladder e) bulbourethral glands
- c__36) Gland that causes many problems for men as they get older:
a) epididymis b) seminal vesicles c) prostate gland d) bladder e) bulbourethral glands
- a__37) True or false: semen is slightly basic:
a) True b) False
- d__38) Under normal circumstances, a fertilized egg will implant in the:
a) oviducts b) cervix c) ovaries d) uterus
- b__39) True or false: the inside surface of the oviducts is covered with flagella:
a) True b) False
- c__40) The surge in LH production causes:
a) FSH production to decline b) sperm to attach to eggs c) ovulation
d) the uterine lining to disintegrate e) ADH levels to decrease
- e__41) The corpus luteum releases:
a) estrogen b) progesterone c) FSH d) all of the above e) a & b
- e__42) Contractions in the uterus (for birth) are directly caused by:
a) estrogen b) progesterone c) FSH d) LH e) oxytocin

- a__ 43) True or false: the baby gets much of its immunity from the mother via breast milk:
a) True b) False
- a__ 44) The brain and spinal cord make up the:
a) CNS b) PNS c) impossible to tell
- c__ 45) Supporting cells that help maintain the blood/brain barrier:
a) Schwann cells b) oligodendrocytes c) astrocytes d) neurons
- d__ 46) The normal, resting, voltage of a neuron:
a) 250,00 volts b) 120 volts c) 240 volts d) -70 millivolts
- a__ 47) At rest, a neuron has more K^+ ions:
a) inside the cell b) outside the cell
- b__ 48) Humans have:
a) electrical synapses b) chemical synapses c) none of the above
- b__ 49) True or false: a presynaptic neuron will always cause an action potential in the postsynaptic neuron:
a) True b) False
- c__ 50) A really, really, bad thing to give to an elephant:
a) morphine b) caffeine c) LSD d) water e) serotonin

Reminders:

- 1) Please put your G-number on the scantron before you hand it in.
- 2) You may keep the exam.
- 3) Use blackboard to look up your score (hopefully within 24 hours).